

REMARKS/ARGUMENTS

This Amendment is in response to the Office Action dated November 12, 2004. Claims 1-17 are pending in the present application. Claims 1-10, 12, and 15-17 have been rejected, and claims 11, 13, and 14 have been objected to. Claims 1, 4, and 15-17 have been amended to correct typographical and grammatical errors, in view of the Examiner's comments, to place the claims in condition for allowance. Accordingly, claims 1-17 remain pending. For the reasons set forth more fully below, Applicants respectfully submit that the claims as presented are allowable. Consequently, reconsideration, allowance, and passage to issue are respectfully requested.

Applicants have included a Petition for Extension of Time to extend the deadline for filing a response by one (1) month, from February 12, 2005 to March 14, 2005.

Allowable Subject Matter

Applicants note with appreciation that claims 11, 13, and 14 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Objections

The Examiner has stated:

Claims 4 and 15 are rejected under U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "said device" in line 1. There is insufficient antecedent basis for this limitation in the claim. Correction is therefore required to indicate whether "said device" should be "said first boot device" or "said second boot device". For the purpose of the examination, the examiner will assume "said device" to be "said second boot device" since claim 4 depends from claim 3, which addresses "said second boot device".

Claim 15 is set out to be a method claim. However, there are no method steps in the claim. It seems like an apparatus claim. Correction is therefore required.

In response, claims 4 and 15 have been amended in accordance with the Examiner's instructions/suggestions to address the above-referenced objections. Specifically, in claim 4, phrase "said device" has been amended to read "said second boot device." Also, in claims 15-17, the word "method" in the preambles have been substituted with the word "system." Accordingly, Applicants respectfully submit that amended claims 4 and 15 overcome the above-referenced objections.

Claim Rejections - 35 U.S.C. §103

The Examiner has stated:

Claims 1-10, 12, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kottapurath et al, Patent No. 6,553,490, in view of Chambers, Patent No. 5,249,224.

As to claims 1 and 15, Kottapurath et al teach switching between a plurality of boot devices in an information processing unit, in which an operating system is booted from a first boot device for normal operation (booting off hard drive, col. 2 lines 18-37) or is booted from a second boot device for a special operation (booting off network server, col. 2 lines 18-37), and switching an OS boot source between the first boot device and the second boot device based on a verification signal being outputted at the time of powering on or restarting the information processing unit (output of the identifier program signaling for the OS boot source, col. 1 lines 38-65).

However, Kottapurath et al do not expressly teach outputting the verification signal from an output port of an external device connector, and switching or not switching the device based on a determination of whether the verification signal is input to an input port of the external device connector.

Chambers teaches outputting a verification signal from an output port of an external device connector, and switching or not switching a device based on a determination of whether the verification signal is input to an input port of the external device connector (col. 11, lines 33-38).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Kottapurath et al and Chambers because Chambers' shorting the switching equipment by insertion of a shorting plug, when incorporated into Kottapurath, would have enabled a more efficient and cost

effective solution to the switching process by simply inserting or not inserting the plug into the connector (Chambers, col. 3 lines 25-39)...

Applicants respectfully disagree with the Examiner's rejections. The present invention provides a method and system for switching between a plurality of boot devices in an information processing unit. In accordance with the present invention, the information processing unit includes an external device connector having at least one output port and at least one input port. An operating system (OS) is booted from a first boot device for normal operation or is booted from a second boot device for a special operation. The method includes: outputting a verification signal from said output port at the time of powering on or restarting said information processing unit; determining whether or not said verification signal is input to said input port; and switching an OS boot source to said to said first boot device when said verification signal is not input to said input port. Kottapurath in view of Chambers does not teach or suggest these features, as discussed below.

Kottapurath discloses a computer system including a local computer with a capability to automatically update an operating system or an application program from a network server. The local computer stores a current program such as an operating system or an application program. The network server stores a latest program, which is a latest version of the current program, and an identifier program for generating an identification corresponding to the latest program upon interrogation. An updater program is alternatively stored on the local computer or on the network server for causing the latest program to be transferred from the network server to the local computer, and for replacing the current computer program. The current program and the latest program each include a startup program configured to interrogate the identifier program, to

determine if the identification corresponds with the current program, and to run the updater program if the identification does not correspond to the current program,. (Abstract)

Applicants agree with the Examiner that Kottapurath does not expressly teach outputting the verification signal from an output port of an external device connector, and switching or not switching the device based on a determination of whether the verification signal is input to an input of the external device connector, as recited in the present invention.

Applicants respectfully submit that Kottapurath also does not teach the combination of “switching an OS boot source to said second boot device” and “switching the OS boot source to said first boot device” based on the “verification signal,” as recited in amended independent claim 1. The Examiner as referred to column 1, lines 38-65, of Kottapurath as teaching an “output of the identifier program signaling for the OS boot source.” However, in one of the only two locations where the “identifier program” is mentioned in this section, Kottapurath merely states that a network server stores the “identifier program for generating an identification corresponding to the latest computer program upon interrogation.” In the second location where the identifier program is mentioned, Kottapurath describes a current program and a latest program, each including “a startup program configured to interrogate the identifier program” and configured to “determine if the identification corresponds to the current program” (column 1, lines 53-56 and 61-65). Nowhere does Kottapurath state that the identifier program signals for the OS boot source, as suggested by the Examiner.

In column 2, lines 22-29, Kottapurath mentions that a SPARC machine can alternate between booting off a network server or off of a hard drive. However, nowhere does Kottapurath specifically describe how, except that a “boot-device parameter can be changed by software.”

Also, Kottapurath fails to describe the “verification signal,” as recited in the present invention.

The Examiner admits that Kottapurath does not expressly teach outputting the verification signal from an output port of an external device connector, and switching or not switching the device based on a determination of whether the verification signal is input to an input of the external device connector, as recited in the present invention.

The Examiner has referred to Chambers as teaching the features that Kottapurath fails to teach. Chambers discloses a method and apparatus for providing reciprocal impedance conversion. A reciprocal impedance conversion network is used in a reciprocal negative impedance repeater for the nonloaded cable facilities of a telephone system. Two independent voltage sources for generating reciprocal negative impedance are connected between a first port and a second port. The first port is operably connected to the first voltage source such that a series negative impedance appears at that port. This port is specifically connected to the switching equipment of the telephone system. The second port is operably connected to the second voltage source such that a shunt negative impedance appears at that port. The second port is specifically connected to the nonloaded cable facilities of the telephone system. The network further provides a frequency dependent gain circuit, which is useful for equalizing the losses along the nonloaded cable facilities. In addition, the network provides an unconditional stability test for the reciprocal negative impedance repeater, which may be performed substantially without test equipment. Also voltage feedback to the subscriber port proportional to subscriber current reduces the impedance as seen by subscriber line equipment and insures the proper operation of some impedance sensitive devices. (Abstract)

However, Chambers fails to cure the defects of Kottapurath, because Chambers fails to teach or suggest the combination of “outputting the verification signal from said output port at the time of powering on or restarting said information processing unit,” “switching an OS boot source to said second boot device when said verification signal is input to said input port,” and “switching the OS boot source to said first boot device when said verification signal is not input to said input port,” as recited in the present invention. The Examiner has referred to column 11, lines 33-38, as teaching these features. However, column 11, lines 33-38, does not describe “outputting the verification signal from said output port at the time of powering on or restarting said information processing unit,” as recited in amended independent claim 1. Column 11, lines 33-38 states:

A conductive shorting plug inserted in shorting jack 144 will connect the switching equipment terminals of transformer 108 directly together to short circuit Port A. Insertion of the shorting plug in jack 144 will also open terminals 100-102 to disconnect the switching equipment.

Applicants fail to understand how this section is relevant. This section is describing how a singing detector, which along with the shorting jack, is used to perform an electronic alignment and unconditional stability test for the repeater. Chambers is clearly not describing “outputting the verification signal from said output port at the time of powering on or restarting said information processing unit” or “switching an OS boot source” based on the verification signal, as recited in the present invention.

Therefore, Kottapurath in view of Chambers does not teach or suggest the combination of steps as recited in amended independent claim 1, and claim 1 is allowable over the cited references.

Independent claim 15

Amended independent claim 15 recites, a “plug attachable to an external device connector” and “switching from the first boot device to the second boot device by directly connecting at least one output of said plug with at least one input thereof.” As described above, with respect to amended independent claim 1, Kottapurath does not specifically describe how a SPARC machine can alternate between booting off a network server or off of a hard drive. Clearly, the reference to a boot-device parameter that can be changed by “software” teaches away from a hardware “plug.” Chambers, which is directed to “reciprocal impedance conversion,” is not relevant to booting devices. Therefore, Kottapurath in view of Chambers does not teach or suggest the cooperation of elements as recited in amended independent claim 15, and claim 15 is allowable over the cited references.

Dependent claims

Dependent claims 2-14 and 16-17 depend from amended independent claims 1 and 15, respectively. Accordingly, the above-articulated arguments related to amended independent claims 1 and 15 apply with equal force to claims 2-14 and 16-17, which are thus allowable over the cited references for at least the same reasons as claims 1 and 15.

Conclusion

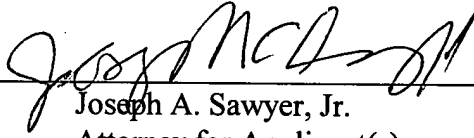
In view of the foregoing, Applicants submit that claims 1-17 are patentable over the cited references. Applicants, therefore, respectfully request reconsideration and allowance of the claims as now presented.

Applicants' attorney believes that this application is in condition for allowance. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted,

SAWYER LAW GROUP LLP

March 14, 2005
Date



Joseph A. Sawyer, Jr.
Attorney for Applicant(s)
Reg. No. 30,801
(650) 493-4540